	WHO Grade			RRAS Category		
Case	Grader 1	Grader 2	Grader 3	Grader 1	Grader 2	Grader 3
1	M	P	M	L	L	I
2	M	P	M	I	I	I
3	P	P	P	H	H	H
4	M	P	P	I	H	H
5	M	P	W	L	L	L
6	M	P	M	I	I	L
7	M	P	P	I	I	H
8	M	P	P	H	H	I
9	M	P	P	I	H	I
10	M	P	M	I	I	I
11	M	P	P	I	I	I
12	M	M	M	I	L	I
13	W	P	W	L	L	L
14	M	P	P	I	I	I
15	M	W	M	I	L	L
16	M	P	W	I	I	L
17	M	P	P	H	H	I
18	M	P	M	I	I	I
19	W	P	M	L	L	I
20	M	P	M	I	H	I
	K = 0.136			K = 0.543		

Supplementary Figure 2: Assessment of interobserver agreement. *RRAS categorization offers improved agreement between three pathologists, compared to WHO grade. 20 challenging tumors were evaluated using WHO methodology (weighted kappa=0.136;* ***W****=well-differentiated,* ***M****=moderately differentiated, and* ***P****=poorly differentiated) and RRAS criteria (weighted kappa=0.543;* ***L****=low risk,* ***I****=intermediate risk, and* ***H****=high risk). Cases shaded green indicate agreement among all graders, yellow indicates agreement among 2 of 3 graders, and red indicates no agreement among any of the graders.*